



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## NOTES FROM THE PSYCHOLOGICAL LABORATORY OF VASSAR COLLEGE

### I. SOME STATISTICS ON SYNÆSTHESIA

---

Collected by K. B. ROSE

---

Two hundred and fifty-four women students, mostly from the Junior and Senior college classes, were asked to report upon any associations they possessed between colors or forms and letters, numbers, days of the week, months, and so on. It was found that 23, or a little over 9%, had color associations. Of these, 6 showed the phenomenon in a very striking degree; 7 in a moderate degree, and 10 in a slight degree. The order of colors arranged according to the frequency with which they entered into associations of this sort was, beginning with the most frequent: brown, yellow, gray, red, blue, green, pink, white, orange, violet, lavender. The colors were associated oftenest with letters, next oftenest with names of persons; then came names of cities, and lastly musical tones. Of the letters associated with colors 40% were vowels: since the number of consonants in the alphabet is about four times the number of vowels, this means a decided preponderance of vowels in color associations. The letter *o* was most frequently found in such associations: *a* was a close second, then came *e*, while *i* and *u* stood together as the vowels least often occurring in association with colors.

The number of persons having form-associations was 32, about 12% of the number questioned. In 27 cases the year was associated with a form, and in 22 of these the figure was that of an ellipse or circle, an obvious suggestion from diagrams of the earth's orbit such as are often found in geographies. In 21 cases the numbers from 1 to 10 suggested a form; in 16 cases the days of the week had this sort of association, and in two instances centuries had a figure associated to them.

### II. AN INSTANCE OF THE EFFECT OF VERBAL SUGGESTION ON TACTUAL SPACE PERCEPTION

---

Reported by M. F. WASHBURN

---

The observer in the experiments to be described was a young woman student of psychology, a good visualizer, and, according to her own statement, decidedly suggestible. The experimenters were the writer and Dr. Elsie Murray; probably the fact that they both, as members of the instructing staff, possessed prestige in the observer's mind, added to the effectiveness of their suggestions.

In the first set of experiments, the method was as follows. Rubber-tipped compass points, separated by a distance of 15 mm., were set down on the volar side of the observer's wrist, parallel to the long axis, and, after an interval of two seconds, set down again in the same region, being shifted only enough to avoid fatiguing the skin.

This procedure was repeated for ten experiments. The observer had been told beforehand that the points in the second of the two impressions would be either further apart or nearer together than in the first, and was asked to make the judgment 'larger' or 'smaller' with regard to the second distance. As a matter of fact, the same separation of the points was used throughout. Ten experiments made after this plan were followed by ten in which the observer was told that the second distance would be either larger than smaller than or equal to the first; the actual distances were kept constant as before. In a third series of ten, the conditions being otherwise the same, the observer was told that some of the second impressions would be of one point only. Eight complete sets, of thirty experiments each, were made. It was found that the judgments were distributed in the following way.

Suggestion	Judgment 'larger'	J. 'smaller'	J. 'same'	J. 'one'
Larger or smaller	28	42	5	5
L., s., or same	25	24	20	11
L., s., same or one,	14	16	26	24

The effect of suggestion is very striking.

In a second part of the investigation, the same suggestions were given, but instead of keeping the compass points at a constant distance apart, one point only was used in all the experiments. Ten complete sets of thirty experiments each were made. The following results were obtained:

Suggestion	J. 'larger'	J. 'smaller'	J. 'same'	J. 'one'
L. or s.	38	61	0	1
L., s., or same	23	42	33	2
L., s., same or one	22	34	28	16

Here the suggestion was still more efficacious. It is remarkable that the judgment 'one point' should have been given less often throughout this part of the investigation, where two points were never used, than in the first part, where one point was never used. After-images very likely played a part in producing the illusion of duality, although the skin was lightly rubbed between experiments to get rid of them. Twice, while the series where the suggestion 'Larger, smaller, same, or one' was being given, the observer expressed wonder that so few one-point impressions were given, although she was actually, of course, being given nothing else.

Finally, a single set of thirty experiments, ten in each series, was made where the impressions were given in accordance with the suggestions. That is, in the first set the second impression was sometimes larger, sometimes smaller than the first; in the second set, the two distances were sometimes equal, and in the third set both impressions were sometimes of one point only. There were five correct judgments in the first ten, six in the second, and six in the third, showing, as far as so small a number of experiments could, that the separation of the points was somewhat below the limen.

So marked an example of the influence of suggestion in this field, an influence which was first demonstrated by Tawney, seemed worth reporting.